



# Ultraguard 3% AR-AFFF FM Approved CUG

Chemguard Ultraguard 3% AR-AFFF is a specially formulated, aqueous film forming free flowing viscous foam concentrates. It forms a vapor suppressing aqueous film on hydrocarbon type fuels or a polymeric membrane on polar solvent/water miscible type fuels. Ultraguard 3% AR-AFFF is intended for use at a proportioning rate of 3% (3 parts CUG concentrate to 97 parts water) on hydrocarbon fuels such as gasoline, kerosene, diesel, etc., and on polar solvent/water miscible fuels such as alcohols, ketones, esters, etc.

## FEATURES

- U. L. Listed, Foam Liquid Concentrate
- FM Approved
- Type Approval: GB15308-94
- Used at a 3% proportioning rate on both hydrocarbon and polar solvent fuels
- Suitable for use with either fresh or salt water
- Excellent wetting characteristics when used in combating Class "A" fuel fires
- Suitable for use with deluge and closed head foam water sprinkler systems
- Suitable for use with fiberglass, polyethylene or stainless steel. Ultraguard 3% AR-AFFF is not compatible with galvanized pipe or fittings in an undiluted form.
- Suitable for use with dry chemical extinguishing agents.
- Suitable for use with both air-aspirating foam and standard water fog nozzles

## PROPORTIONING

- Fixed or portable in-line eductors
- In-line balanced pressure and pump pressure proportioning skid
- Bladder tank balanced pressure proportioning systems
- Around the pump proportioners

- Handline, air-aspirating nozzles with fixed eductor pickup tube

## DISCHARGE DEVICES

- Foam Chamber models FC 2.5, 3.0, and 4.0 are UL / FM approved on Ethanol and Hydrocarbon fuel groups
- Air-aspirating and non air-aspirating sprinkler heads or spray nozzles
- Standard water fog nozzles for handlines and monitors
- Air-aspirating foam nozzles
- Foam makers for use with either Floating Roof storage tanks or Dike/Bund protection systems
- High back pressure foam makers for sub surface base injection system (hydrocarbon type fuels only)

## DESIGN INFORMATION

Cannot be used in sub-surface applications with polar solvent type fuels.

## FOAMING PROPERTIES

Aspirating type discharge devices typically generate expansion ratios between 6-10 to 1 when 3% AR-AFFF is mixed with water at the correct ratio. Non-aspirating type devices will typically generate expansion ratios of between 2-4 to 1. Expansion ratios are dictated by the type of discharge device, flow rate and discharge pressure.

## TYPICAL PROPERTIES AT 77°F (25°C)

Appearance.....Off White Gel-Like Liquid  
Specific gravity.....1.020 g/ml  
pH.....7.4  
Viscosity.....3000-3200 cps\*

\*Brookfield #4 Spindle at 30 rpm

## APPLICATION RATES

Recommended Top Side application rates on hydrocarbon type fuels is 0.10 gpm/ft<sup>2</sup> and 0.15 gpm/ft<sup>2</sup> on polar solvent type fuels. On the following

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specific polar solvent type fuel groups these are the recommended minimum application rates:

IPA	0.15 gpm/ft <sup>2</sup>
METHANOL	0.10 gpm/ft <sup>2</sup>
ETHANOL	0.10 gpm/ft <sup>2</sup>
METHYL ETHYL KETONE	0.13 gpm/ft <sup>2</sup>
ETHYL ACETATE	0.15 gpm/ft <sup>2</sup>
MTBE	0.15 gpm/ft <sup>2</sup>

### **ENVIRONMENTAL IMPACT**

Chemguard 3% AR-AFFF is biodegradable, low in toxicity and can be treated in sewage treatment plants. Please refer to Chemguard Technical Bulletin regarding foam products and the environment.

### **STORAGE**

If kept in the original unopened and airtight Chemguard supplied container and stored within the temperature range of 35°F-120°F(2°C-49°C), a shelf life of between 20-25 years can be expected. If the AR-AFFF is to be stored in an atmospheric type foam concentrate storage tank whether on mobile apparatus or stationary, limit the airspace above the surface of the concentrate whenever possible and place a thin layer of quality mineral oil on the surface of the foam concentrate to minimize any effect from evaporation.

### **ORDERING INFORMATION & WEIGHT**

<b>Part No:</b>	<b>Container</b>	<b>Weight</b>
CUGP	5-Gallon Pail / 19 Liters	45 lbs.
CUGD	55-Gallon Drum / 208 Liters	495 lbs.
CUGBD	330-Gallon Tote / 1249 Liters	3000 lbs.

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